

UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

In the Matter of

CERTAIN LIGHT-EMITTING DIODE
PRODUCTS AND COMPONENTS
THEREOF

Investigation No. 337-TA- _____

COMPLAINT UNDER SECTION 337 OF THE
TARIFF ACT OF 1930, AS AMENDED

Complainant

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EXHIBIT LIST

Exhibits	Description
1	Certified Copy of U.S. Patent No. 6,657,236
2	Certified Copy of U.S. Patent No. 6,885,036
3	Certified Copy of U.S. Patent No. 6,614,056
4	Certified Copy of U.S. Patent No. 7,312,474
5	Certified Copy of U.S. Patent No. 7,976,187
6	Certified Copy of U.S. Patent No. 8,766,298
7	Certified Copy of U.S. Patent No. 8,596,819
8	Certified Copy of U.S. Patent No. 8,628,214
9	Assignment Records for U.S. Patent No. 6,657,236
10	Assignment Records for U.S. Patent No. 6,885,036
11	Assignment Records for U.S. Patent No. 6,614,056
12	Assignment Records for U.S. Patent No. 7,312,474
13	Assignment Records for U.S. Patent No. 7,976,187
14	Assignment Records for U.S. Patent No. 8,766,298
15	Assignment Records for U.S. Patent No. 8,596,819
16	Assignment Records for U.S. Patent No. 8,628,214
17	List of Foreign Counterparts
18	Confidential List of Licensees
19	Cree 2014 Annual Report
20	Printout from http://www.unityopto.com.tw/en-global/Product/products/Index/116
21	Confidential Declaration of Jonathan Vollers
22	Printout from http://www.energystar.gov/index.cfm?c=lighting.pr_what_are#what_are&s=mega
23	Copy of Respondents' packaging
24	Printouts from www.homedepot.com
25	Confidential '236 Patent Infringement Claim Charts
26	Confidential '036 Patent Infringement Claim Charts
27	Confidential '056 Patent Infringement Claim Charts
28	Confidential '474 Patent Infringement Claim Charts
29	Confidential '187 Patent Infringement Claim Charts
30	Confidential '298 Patent Infringement Claim Charts
31	Confidential '819 Patent Infringement Claim Charts
32	Confidential '214 Patent Infringement Claim Charts
33	Printout from http://www.feit.com/
34	EPA Letter dated August 28, 2014
35	PIERS Importation Records
36	Declaration of Daniil Chernichenko
37	Confidential '236 Patent Domestic Industry Claim Chart
38	Confidential '036 Patent Domestic Industry Claim Chart
39	Confidential '056 Patent Domestic Industry Claim Chart
40	Confidential '474 Patent Domestic Industry Claim Chart

Exhibits	Description
41	Confidential '187 Patent Domestic Industry Claim Chart
42	Confidential '298 Patent Domestic Industry Claim Chart
43	'819 Patent Domestic Industry Claim Chart
44	'214 Patent Domestic Industry Claim Chart
45	Confidential Declaration of Scott Schwab

PHYSICAL EXHIBIT LIST

Exhibits	Description
P1	Cree A19 LED Bulb (Product No. BA19-04527OMF-12DE26-2U100)
P2	Cree A19 LED Bulb (Product No. BA19-04527OMF-12DE26-3U100)
P3	Cree BR30 LED Bulb (Product No. BBR30-06527FLF-12DE26-3U100)
P4	Feit Electric BR30 LED Bulbs (Product No. BR30/DM/650/3K/LED/2)
P5	Feit Electric A19 LED Bulb (Product No. BPAGOM800/LED)
P6	Feit Electric “Decorative” LED Bulb (Product No. BPAG500DM/LED)

APPENDIX LIST

Appendices	Description
A	Prosecution History of U.S. Patent No. 6,657,236
B	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 6,657,236
C	Prosecution History of U.S. Patent No. 6,885,036
D	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 6,885,036
E	Prosecution History of U.S. Patent No. 6,614,056
F	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of the U.S. Patent No. 6,614,056
G	Prosecution History of U.S. Patent No. 7,312,474
H	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 7,312,474
I	Prosecution History of U.S. Patent No. 7,976,187
J	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 7,976,187
K	Prosecution History of U.S. Patent No. 8,766,298
L	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 8,766,298
M	Prosecution History of U.S. Patent No. 8,596,819
N	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 8,596,819
O	Prosecution History of U.S. Patent No. 8,628,214
P	Patents and Applicable Pages of Technical References Mentioned in the Prosecution History of U.S. Patent No. 8,628,214

I. INTRODUCTION

1. Cree, Inc. (“Cree” or “Complainant”) files this complaint under Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, based on the unlawful importation into the United States, sale for importation into the United States, and/or sale within the United States after importation by the proposed Respondents of certain light-emitting diode (“LED”) products and components thereof that infringe one or more claims of United States Patent Nos. 6,657,236 (“the ’236 patent”); 6,885,036 (“the ’036 patent”); 6,614,056 (“the ’056 patent”); 7,312,474 (“the ’474 patent”); 7,976,187 (“the ’187 patent”); 8,766,298 (“the ’298 patent”); 8,596,819 (“the ’819 patent”); and 8,628,214 (“the ’214 patent”) (collectively, the “Asserted Patents”), either literally or under the doctrine of equivalents, and/or are falsely and misleadingly advertised in violation of section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a) and/or the federal common law of unfair competition.

2. Cree is a leading innovator of lighting-class LED products, lighting products and semiconductor products for power and radio-frequency applications. Based in Durham, North Carolina, Cree employs thousands of individuals in the United States and has invested over a billion dollars in domestic research, development, and manufacturing to bring revolutionary LED products and components thereof to market.

3. The proposed Respondents Feit Electric Company, Inc. (“Feit Electric”); Feit Electric Company, Inc. (China) (“Feit Electric China”) (collectively “Feit Electric Respondents”); Unity Opto Technology Co., Ltd. (“Unity Opto”); and Unity Microelectronics, Inc. (“Unity Microelectronics”) (collectively “Unity Opto Respondents”) manufacture abroad, import, sell for importation into the United States, and sell after importation into the United States certain LED products and components thereof (“Accused Products”). As set forth in Section VIII below, the Accused Products are manufactured abroad in locations such as China

and Taiwan, and are imported for sale into the United States. The Accused Products incorporate, without any license from Cree, many technologies developed by Cree and protected by patents owned by Cree. The Asserted Patents and corresponding asserted claims are listed below (independent claims in **bold**):

Patent No.	Asserted Claims
6,657,236	1 -2, 4-6, 8, 11-12, 14-16, 20, 23 -26, 28, 32
6,885,036	1 -7, 9-11, 13
6,614,056	1 -4, 6, 10
7,312,474	1 -3, 6-7, 15-19, 20 -21
7,976,187	1 -2, 3 , 4-6, 26 -30
8,766,298	1 -5
8,596,819	1 -4, 6-12, 19, 22-28, 52 -59
8,628,214	7 -8, 14-15, 16 -19, 24-25

4. Cree owns full rights, title, and interest in and to the Asserted Patents.

5. A domestic industry as required by 19 U.S.C. § 1337(a)(2) and (3) exists in the United States relating to articles protected by Cree's Asserted Patents. Cree's domestic industry includes significant investment in plant and equipment, significant employment of labor and capital, and substantial investment in the exploitation of the inventions claimed in Cree's Asserted Patents, including through engineering, research, and development.

6. The proposed Respondents also falsely and misleadingly advertise certain of their LED products and components thereof, causing substantial injury and/or threatening to cause substantial injury to Cree's domestic industry.

7. Cree seeks as relief a permanent limited exclusion order under 19 U.S.C. § 1337(d) barring from entry into the United States infringing and/or falsely and misleadingly

advertised LED products and components thereof that are manufactured, sold for importation, and/or imported by or on behalf of the proposed Respondents. Cree further seeks as relief permanent cease and desist orders under 19 U.S.C. § 1337(f) prohibiting the proposed Respondents from marketing, distributing, selling, offering for sale, warehousing inventory for distribution, and otherwise transferring or bringing into the United States LED products and components thereof that violate Section 337.

II. COMPLAINANT

8. Cree is a publicly-traded corporation organized and existing under the laws of the State of North Carolina and having its principal place of business at 4600 Silicon Drive, Durham, North Carolina.

9. Cree is in the business of designing, developing, manufacturing and selling innovative LED products, lighting products, and semiconductor products for power and RF applications. Cree was founded in 1987 as a manufacturer of silicon carbide (SiC) wafers. Building on its success with SiC, Cree began developing innovative LEDs for use in a variety of applications and introduced numerous LEDs in the 1990s and 2000s. In 2004, Cree launched its XLamp® LED product line. XLamp® LEDs were the first LEDs bright enough to be used in general-illumination applications such as desk lamps, ceiling fixtures, and street lights. These types of LEDs are now called “lighting-class” LEDs. Today, Cree’s XLamp® LEDs continue to set the industry standards for brightness and efficiency. In his second speech at Cree’s Durham, North Carolina headquarters, President Obama commended Cree both for “helping to lead a clean energy revolution” and “helping lead the comeback of American manufacturing.” Cree, according to President Obama, “is a company where the future will be won.”¹ In March

¹ See <http://www.whitehouse.gov/the-press-office/2011/06/13/remarks-president-cree-inc-durham-north-carolina>.

2013, Cree introduced its first general purpose (A-type) LED bulb. Cree's "Gen-1" A-type bulb received numerous accolades and was viewed as a ground-breaking advancement by the tech community.² In October 2013, Cree announced that two of its household LED bulbs had qualified for the federal ENERGY STAR program, leading the way for them to earn rebates from electric utilities, and effectively lowering the prices of general purpose LED bulbs to better compete with traditional incandescent and compact fluorescent lamp ("CFL") bulbs.

10. Additional information concerning Cree can be obtained from its 2014 Annual Report, attached as Exhibit 19.

III. PROPOSED RESPONDENTS

A. Feit Electric Respondents

11. Feit Electric is a privately held company incorporated in the State of California. It has its principal place of business at 4901 Gregg Road Pico Rivera, CA 90660.

12. Feit Electric produces abroad, sells for importation, imports, and/or sells in the United States after importation Accused Products.

13. Feit Electric China is a privately held company with its principal place of business at Zone B, 2/F, Xinyu Building, No. 17 Huoju East Road, Huli District Xiamen, China.

14. Feit Electric China produces abroad and distributes and/or sells for importation Accused Products to the United States.

15. Additional information about Feit Electric can be obtained from Feit Electric's website at www.feit.com.

² See, e.g., <http://www.technologyreview.com/view/512126/cree-introduces-an-led-bulb-edison-would-love>.

B. Unity Opto Respondents

16. Unity Opto is a publicly traded company based in Taipei, Taiwan. It has its principal place of business at 10th Floor, No. 88-8, Sec. 1, Guangfu Road, Sanchong District, New Taipei City 241, Taiwan.

17. Unity Opto produces abroad, sells for importation, imports, and/or sells in the United States after importation Accused Products.

18. Unity Opto produces Accused Products in at least China and Taiwan that are sold to the Feit Electric Respondents for importation into the United States.

19. Unity Opto maintains distribution centers in at least Texas, China, Taiwan, and Korea.

20. Additional information about Unity Opto can be obtained from Unity Opto's website at www.unityopto.com.

21. Unity Microelectronics is a privately held company incorporated in the State of California. It has its principal place of business at 1501 Summit Ave, Suite 10, Plano, Texas 75074.

22. Unity Microelectronics describes itself as "the U.S.-based sales and marketing division of Unity Opto Technology, LTD." See <http://www.unity.com/company>.

23. Additional information about Unity Microelectronics can be obtained from its website at www.unity.com.

IV. THE TECHNOLOGY AND PRODUCTS AT ISSUE

24. The technology at issue relates to LEDs, including the design, structure, and operation of LED semiconductor chips, packaging for LEDs, and products that use LEDs as a light source.

25. Pursuant to Commission Rule 210.12(a)(12), the Accused Products include, without limitation, certain LED products, such as LED bulbs, other LED lighting products and components of these products, including LED chips and chip packages.

V. THE ASSERTED PATENTS AND NONTECHNICAL DESCRIPTIONS OF THE INVENTIONS³

A. The '236 Patent

1. Identification and Ownership of the '236 Patent

26. Cree owns by assignment the right, title and interest in United States Patent No. 6,657,236, titled "Enhanced Light Extraction in LEDs Through the Use of Internal and External Optical Elements," which issued on Dec. 2, 2003, naming Brian Thibeault, Michael Mack, and Steven DenBaars as co-inventors. A certified copy of the '236 patent is attached as Exhibit 1. A copy of the assignment from the named inventors to Cree is attached as Exhibit 9.⁴ A copy of the prosecution history of the '236 patent is attached as Appendix A.⁵ Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '236 patent are attached as Appendix B.

2. Foreign Counterparts to the '236 Patent

27. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '236 patent, with an indication of the

³ All non-technical descriptions of the patents herein are presented to give a general background of those patents. These statements are not intended to be used nor should they be used for purposes of patent claim construction. Complainant presents these statements subject to and without waiver of its right to argue that claim terms should be construed in a particular way under claim interpretation jurisprudence and the relevant evidence.

⁴ Certified copies of the patent assignments for all Asserted Patents have been ordered and will be provided once they are received from the U.S.P.T.O.

⁵ Certified copies of the patent prosecution histories for all Asserted Patents have been ordered and will be provided once they are received from the U.S.P.T.O.

prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '236 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '236 Patent

28. The '236 patent relates generally to the use of light extraction structures to enhance light extraction in LEDs. The '236 patent discloses novel light extraction structures that provide surfaces for reflecting, refracting or scattering light into directions that are more favorable for the light to escape, as well as disperser layers that provide scattering centers for light. As a result, the new LED has an increased probability of light escaping, improving light emission.

B. The '036 Patent

1. Identification and Ownership of the '036 Patent

29. Cree owns by assignment the right, title and interest in United States Patent No. 6,885,036, titled "Scalable LED with Improved Current Spreading Structures," which issued on Apr. 26, 2005, naming Eric J. Tarsa, Brian Thibeault, James Ibbetson, and Michael Mack as co-inventors. A certified copy of the '036 patent is attached as Exhibit 2. A copy of the assignment from the named inventors to Cree is attached as Exhibit 10.⁶ A copy of the prosecution history of the '036 patent is attached as Appendix C. Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '036 patent are attached as Appendix D.

⁶ Exhibit 10 includes a copy of assignment records for U.S. Patent No. 6,614,056. The '036 patent is a division of the '056 patent.

2. Foreign Counterparts to the '036 Patent

30. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '036 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '036 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '036 Patent

31. The '036 patent generally relates to current spreading structures for LEDs. The '036 patent discloses a novel LED layout with improved current spreading structures that improve current spreading in p-type (a layer with excess holes) and n-type (a layer with excess electrons) layers for both small and large LEDs. As a result, the injection of electrons and holes into the LED's active layer is improved, thereby improving its light emitting efficiency and reducing its series resistance and heating.

C. The '056 Patent

1. Identification and Ownership of the '056 Patent

32. Cree owns by assignment the right, title and interest in United States Patent No. 6,614,056, titled "Scalable LED with Improved Current Spreading Structures," which issued on Sept. 2, 2003, naming Eric J. Tarsa, Brian Thibeault, James Ibbetson, and Michael Mack as co-inventors. A certified copy of the '056 patent is attached as Exhibit 3. A copy of the assignment from the named inventors to Cree is attached as Exhibit 11. A copy of the prosecution history of the '056 patent is attached as Appendix E. Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '056 patent are attached as Appendix F.

2. Foreign Counterparts to the '056 Patent

33. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '056 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '056 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '056 Patent

34. The '056 patent generally relates to current spreading structures for LEDs. The '056 patent discloses a novel LED layout with improved current spreading structures that improve current spreading in p-type (a layer with excess holes) and n-type (a layer with excess electrons) layers for both small and large LEDs. As a result, the injection of electrons and holes into the LED's active layer is improved, thereby improving its light emitting efficiency and reducing its series resistance and heating.

D. The '474 Patent

1. Identification and Ownership of the '474 Patent

35. Cree owns by assignment the right, title and interest in United States Patent No. 7,312,474, titled "Group III Nitride Based Superlattice Structures," which issued on Dec. 25, 2007, naming David Todd Emerson, James Ibbetson, Michael John Bergmann, Kathleen Marie Doverspike, Michael John O'Loughlin, Howard Dean Nordby, Jr., and Amber Christine Abare as co-inventors. A certified copy of the '474 patent is attached as Exhibit 4. A copy of the assignment from the named inventors to Cree is attached as Exhibit 12.⁷ A copy of the

⁷ Exhibit 12 is a copy of the assignment records for U.S. Patent No. 6,958,497. The '474 patent is a division of the '497 patent.

prosecution history of the '474 patent is attached as Appendix G. Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '474 patent are attached as Appendix H.

2. Foreign Counterparts to the '474 Patent

36. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '474 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '474 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '474 Patent

37. The '474 patent relates generally to the use of a Group III nitride based superlattice in an LED. The '474 patent discloses a novel LED including a Group III nitride based superlattice and a Group III nitride based active region on the superlattice, which improves light emission and deters silicon impurities in the active region. As a result, the LED has more consistent performance and better uniformity of light emission.

E. The '187 Patent

1. Identification and Ownership of the '187 Patent

38. Cree owns by assignment the right, title and interest in United States Patent No. 7,976,187, titled "Uniform Intensity LED Lighting System," which issued on July 12, 2011, naming Russell G. Villard as the sole inventor. A certified copy of the '187 patent is attached as Exhibit 5. A copy of the assignment from the named inventors to Cree is attached as Exhibit 13. A copy of the prosecution history of the '187 patent is attached as Appendix I. Copies of

each patent and applicable pages of each technical reference mentioned in the prosecution history of the '187 patent are attached as Appendix J.

2. Foreign Counterparts to the '187 Patent

39. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '187 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '187 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '187 Patent

40. The '187 patent generally relates to LED lighting fixtures, such as bulbs and luminaires, with improved light distribution. Early LED-based fixtures offered improved efficiency over incandescent bulbs, but were unable to replicate their omnidirectional light distribution due to the highly directional emission patterns of individual LEDs. The '187 patent discloses LED-based fixtures that use multiple LED chips positioned at predetermined angles with respect to one another to achieve uniform and omnidirectional light distribution comparable to that of incandescent bulbs.

F. The '298 Patent

1. Identification and Ownership of the '298 Patent

41. Cree owns by assignment the right, title and interest in United States Patent No. 8,766,298, titled "Encapsulant Profile for Light Emitting Diodes," which issued on July 1, 2014, naming Christopher P. Hussell, Michael J. Bergmann, Brian T. Collins, and David T. Emerson as co-inventors. A certified copy of the '298 patent is attached as Exhibit 6. A copy of the

assignment from the named inventors to Cree is attached as Exhibit 14.⁸ A copy of the prosecution history of the '298 patent is attached as Appendix K. Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '298 patent are attached as Appendix L.

2. Foreign Counterparts to the '298 Patent

42. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '298 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '298 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '298 Patent

43. The '298 patent generally relates to an improved package for LEDs. LED packages often include an encapsulant material covering the LED and containing phosphors or dies to produce light of a desired wavelength. The '298 patent discloses a novel geometry for the encapsulant material, resulting in improved distribution and flux of light emanating from the LED package.

G. The '819 Patent

1. Identification and Ownership of the '819 Patent

44. Cree owns by assignment the right, title and interest in United States Patent No. 8,596,819, titled "Lighting Device and Method of Lighting," which issued on Dec 3, 2013, naming Gerald H. Negley, Antony Paul Van de Ven, and Thomas G. Coleman as co-inventors.

⁸ Exhibit 14 is a copy of the assignment records for U.S. Patent No. 7,910,938. The '298 patent is a continuation of the '938 patent.

A certified copy of the '819 patent is attached as Exhibit 7. A copy of the assignment from the named inventors to Cree is attached as Exhibit 15. A copy of the prosecution history of the '819 patent is attached as Appendix M. Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '819 patent are attached as Appendix N.

2. Foreign Counterparts to the '819 Patent

45. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '819 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '819 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '819 Patent

46. The '819 patent generally relates to highly efficient LED lighting devices, such as bulbs and luminaires. Efficiency of LED-based lighting devices is measured in terms of brightness output (in lumens) per power input (in watts). The inventors of the '819 patent developed LED-based lighting devices capable of operating at and above 60 lumens per watt, an efficiency that prior-art devices were unable to achieve. The LED-based lighting devices disclosed in the '819 patent achieve this efficiency while producing light at commercially desirable color-temperature and color-rendering values.

H. The '214 Patent

1. Identification and Ownership of the '214 Patent

47. Cree owns by assignment the right, title and interest in United States Patent No. 8,628,214, titled "Lighting Device and Lighting Method," which issued on Jan. 14, 2014,

naming Gerald H. Negley, Antony Paul Van de Ven, and Thomas G. Coleman as co-inventors. A certified copy of the '214 patent is attached as Exhibit 8. A copy of the assignment from the named inventors to Cree is attached as Exhibit 16.⁹ A copy of the prosecution history of the '214 patent is attached as Appendix O. Copies of each patent and applicable pages of each technical reference mentioned in the prosecution history of the '214 patent are attached as Appendix P.

2. Foreign Counterparts to the '214 Patent

48. Exhibit 17 lists each foreign patent and each pending foreign patent application (not already issued as a patent), and each foreign patent application that has been denied, abandoned or withdrawn, corresponding to the '214 patent, with an indication of the prosecution status of each such patent application. No other foreign patents or patent applications corresponding to the '214 patent have been filed, abandoned, withdrawn, or rejected.

3. Non-Technical Description of the '214 Patent

49. The '214 patent generally relates to highly efficient LED lighting devices, such as bulbs and luminaires. Efficiency of LED-based lighting devices is measured in terms of brightness output (in lumens) per power input (in watts). The inventors of the '214 patent developed LED-based lighting devices capable of operating at and above 60 lumens per watt, an efficiency that prior-art devices were unable to achieve. The LED-based lighting devices disclosed in the '214 patent achieve this efficiency while producing light at commercially desirable color-temperature and color-rendering values.

⁹ Exhibit 16 is a copy of the assignment records for the asserted '819 patent. The '214 patent is a continuation of the '819 patent.

I. Licensees to the Asserted Patents

50. All licensees to one or more of the Asserted Patents are identified in Confidential Exhibit 18.

VI. THE ENERGY STAR PROGRAM

51. The ENERGY STAR Program was established in 1992 by the Environmental Protection Agency (“EPA”) pursuant to section 103(g) of the Clean Air Act. The EPA later established a voluntary ENERGY STAR certification program, including testing and third-party certification of certain energy-efficient products such as household appliances.

52. The ENERGY STAR[®] logo has become the national symbol for energy efficiency, guiding consumers to purchase energy-efficient products that are high-quality substitutes for the less efficient products consumers have come to rely upon.

53. In 1997, the ENERGY STAR Program expanded into lighting products. In order for lighting products to use the ENERGY STAR[®] logo, they must pass rigorous tests in an EPA-recognized laboratory and be certified by a third-party certification body. These requirements ensure that LED bulbs promote energy efficiency while providing consumers with high-quality, long-lasting substitutes for incandescent light bulbs.

54. Cree is a partner in the ENERGY STAR program and many of its LED bulbs qualify for and are sold with the ENERGY STAR[®] logo. *See* Exhibit 45 at 8-10.

55. The ENERGY STAR program requirements for LED bulbs are contained in the Program Specification for Lamps (Light Bulbs) Eligibility Criteria Version 1.1 (“Eligibility Criteria”). *See* Exhibit 21. These requirements address not only energy efficiency, but also impose quality standards on the performance of LED bulbs, including omnidirectionality, lumen output, color rendering and consistency, bulb life, and lumen maintenance. Section 1.1 of the

Eligibility Criteria groups bulbs into three categories (omnidirectional, directional, and decorative) based upon their purpose and standard shape. *See* Exhibit 21 at 1-4.

56. The Eligibility Criteria contain several requirements that vary depending upon the type of bulb being certified. For instance, the light output requirements in Section 9.2 of the Eligibility Criteria require that general purpose A-shape LED “100 watt equivalent” bulbs must initially output from 1,600 – 1,999 lumens of light, while a globe (G) shape decorative bulb that references a 100 watt incandescent bulb must only output 650 – 1,099 lumens. *See id.* at 4.

57. All general purpose bulbs must uniformly distribute light about the bulb in order to qualify for ENERGY STAR certification. As the EPA explains on the ENERGY STAR website (Exhibit 22):

LEDs are “directional” sources, which means they emit light in a specific direction, unlike incandescent and compact fluorescent bulbs, which emit light and heat in all directions. For this reason, LED lighting is able to use light and energy more efficiently in many applications. However, it also means that sophisticated engineering is needed to produce an LED light bulb that shines light all around like an incandescent A-shape bulb.

LED bulbs that have earned the ENERGY STAR are subject to very specific requirements designed to replicate the experience you are used to with a standard A-type bulb, so they can be used for a wide variety of applications. As the graphic on the right [reproduced below] demonstrates, a general purpose LED bulb that does not qualify for the ENERGY STAR may not distribute light in all directions and could prove to be a disappointment if used in a table lamp.



Graphic from ENERGY STAR website

58. Standard A-shape bulbs like Cree's A19 LED bulbs shown below and included with the Complaint as Physical Exhibits P1 and P2, respectively, must pass the "omnidirectional luminous intensity distribution" requirement in section 9.5 of the Eligibility Criteria to use the ENERGY STAR[®] logo. See Exhibit 21 at 5-6.



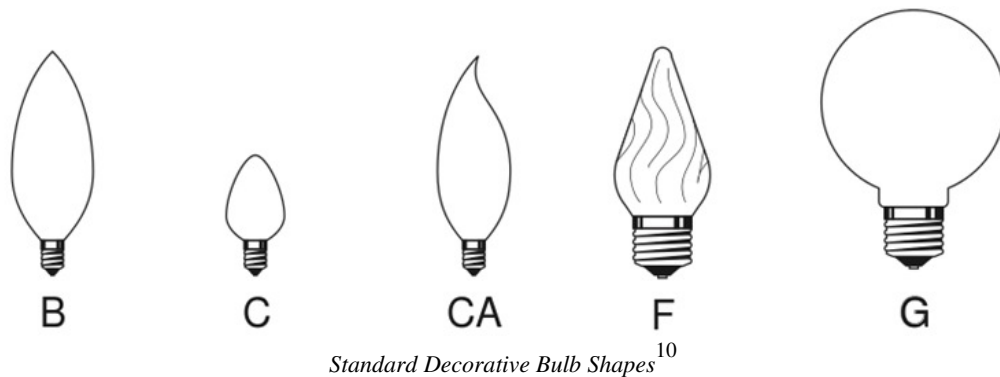
Cree A19 LED Bulbs (Physical Exhibits P1 and P2)

59. The omnidirectional luminous intensity distribution requirement does not apply to directional bulbs such as Cree's BR30 bulb, shown below and included with the Complaint as Physical Exhibit P3. Unlike general purpose bulbs, directional bulbs are designed to direct light in a particular direction, such as downward from the ceiling.



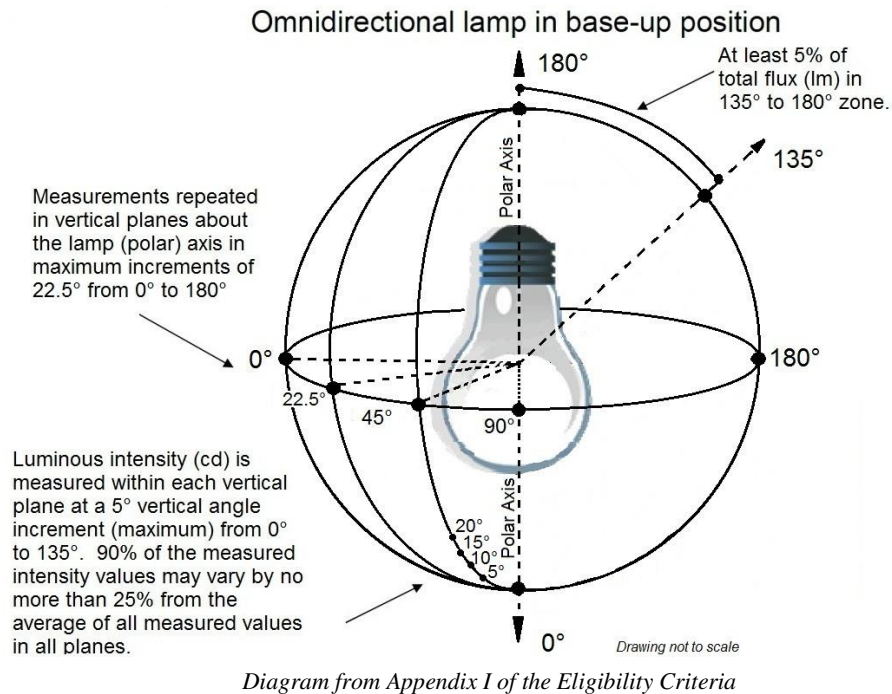
Cree BR30 directional LED Bulb (Physical Exhibit P3)

60. Decorative bulbs, such as the bulb shapes below, serve an ornamental purpose and are typically not designed to broadcast light uniformly about the bulb. Accordingly, they are held to a different, less demanding luminous intensity distribution requirement than general purpose bulbs. *See Exhibit 21 at 6.*



61. To meet the ENERGY STAR omnidirectional luminous intensity distribution requirements in Section 9.5 of the Eligibility Criteria, a general purpose LED bulb must be tested using a prescribed measurement method. The LED bulb’s light intensity is measured by the testing lab at specified locations (“candela points”) surrounding the bulb, as shown in the figure below.

¹⁰ “Decorative Lamp” is defined in Section 4 of the Eligibility Criteria as “a lamp with a candle-like or globe shape envelope including shapes B, BA, C, DA, DC, G and F as defined in ANSI C79.1-2002.”



62. The measurements taken, as a minimum, at each specified candela point along vertical and horizontal planes are averaged. To pass the omnidirectional luminous intensity distribution requirements of Section 9.5 of the Eligibility Criteria, at least 90 percent of the candela point measurements can vary no more than 25 percent from the average of all measured values in the zone of 0 to 135 degrees from the polar axis. In addition, at least 5 percent of total lumens must be emitted in the 135 to 180 degree zone. *See Exhibit 21 at 5.*

63. As described in Section VII below, Respondents falsely advertise certain of their A-shape LED bulbs as meeting the omnidirectional luminous intensity distribution requirement by using the ENERGY STAR® logo on their packaging.

64. Section 9.2 of the ENERGY STAR Eligibility Criteria specifies ranges for reported light output so that comparisons can be made to the light output from an incandescent bulb. *See Ex. 21 at 10.* For example, an omnidirectional LED bulb rated to have the

equivalency of a 100 watt incandescent bulb must have an initial output of 1,600 – 1,999 lumens to qualify for use of the ENERGY STAR[®] logo. *Id.*

65. Section 9.8 of the Eligibility Criteria requires that the color of light emitted from an LED bulb remain stable over time and requires lengthy (6,000 hour) testing to ensure that the bulb's chromaticity change is minimal. *Id.* at 11.

66. Similarly, Section 10.1 of the Eligibility Criteria requires that an LED bulb maintain a large portion of its original brightness over its life, while Section 10.2 requires that a general purpose LED bulb last at least 25,000 hours. *See* Exhibit 21 at 10-11. These qualities ensure that consumers who purchase ENERGY STAR labeled bulbs receive a long-lasting and consistent lighting experience. Both of these requirements require lengthy testing.

67. As described in Section VII below, Respondents also falsely advertise certain of their A-shape LED bulbs as meeting the light output, color maintenance, and lumen maintenance requirements in Sections 9 and 10 of the ENERGY STAR Eligibility Criteria by using the ENERGY STAR[®] logo on their packaging.

68. Use of the ENERGY STAR[®] logo confers a powerful governmental endorsement, signifying energy efficiency, cost savings, and long-lasting performance. In a recent survey, 87% of households recognized the ENERGY STAR[®] logo when shown the label, and 80% had a high or general understanding of the label's purpose.¹¹

69. ENERGY STAR certification also provides a significant cost saving to consumers through local electric utility subsidies provided to energy-efficient, ENERGY STAR-qualified products. Most of these subsidies are made available at the point-of-sale, meaning that a consumer can purchase the bulb at a retail store such as Home Depot and pay a

¹¹ *See* http://www.energystar.gov/sites/default/uploads/about/old/files/2013%20CEE%20Report_508%20compliant.pdf.

subsidized price at checkout. *See* Exhibit 45 at 8-9. That price reduction can make highly efficient LED bulbs price-competitive with standard incandescent or CFL bulbs. For example, a Cree 60 watt replacement A19 LED bulb sold at Home Depot in Alexandria, Virginia is priced at \$9.97 because the local Virginia utility does not provide subsidies. In Washington, D.C., however, the same LED bulb sells at Home Depot for \$3.98, due to local utility subsidies. *See* Exhibit 24. These subsidized prices drive sales of LED bulbs, and ENERGY STAR certified bulbs derive a tremendous (up to 60%) competitive advantage over bulbs that do not qualify to use the ENERGY STAR[®] logo.

70. As described in Section XII below, Respondents' false and misleading advertising, including wrongful use of the ENERGY STAR[®] logo and receipt of undeserved subsidies, has caused and threatens to cause substantial injury to Cree's domestic industry.

VII. UNLAWFUL AND UNFAIR ACTS OF RESPONDENTS

A. PATENT INFRINGEMENT

71. On information and belief, Respondents sell for importation, import and/or sell in the United States after importation LED products and components thereof that infringe one or more claims of the Asserted Patents.

1. Infringement of the '236 Patent

72. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '236 patent.

73. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 4-6, 8, 11-12, 14-16, 20, 23-26, 28, and 32 of the '236 patent. Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products

satisfy all claim limitations of claims 1-2, 4-6, 8, 11-12, 14-16, 20, 23-26, 28, and 32 at the time of importation into the United States.

74. Claim charts comparing the '236 patent's asserted independent claims 1 and 23 to a representative Accused Product are attached as Confidential Exhibit 25.¹²

2. Infringement of the '036 Patent

75. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '036 patent.

76. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-7, 9-11, and 13 of the '036 patent. Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products satisfy all claim limitations of claims 1-7, 9-11, and 13 at the time of importation into the United States.

77. A claim chart comparing the '036 patent's asserted independent claim 1 to a representative Accused Product is attached as Exhibit 26.

3. Infringement of the '056 Patent

78. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '056 patent.

79. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-4, 6, and 10 of the '056 patent. Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the

¹² Complainant's investigation of Respondents' infringement is ongoing. Complainant may provide additional theories concerning Respondents' infringement of the Asserted Patents as Complainant receives discovery regarding the processes used by Respondents and the products made from them.

United States the Accused Products. The Accused Products satisfy all claim limitations of claims 1-4, 6, and 10 at the time of importation into the United States.

80. Claim charts comparing the '056 patent's asserted independent claims 1 and 10 to a representative Accused Product are attached as Exhibit 27.

4. Infringement of the '474 Patent

81. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '474 patent.

82. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-3, 6-7 and 15-21 of the '474 patent. Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products satisfy all claim limitations of claims 1-3, 6-7 and 15-21 at the time of importation into the United States.

83. Claim charts comparing the '474 patent's asserted independent claims 1 and 20 to a representative Accused Product are attached as Exhibit 28.

5. Infringement of the '187 Patent

84. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '187 patent.

85. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-6 and 26-30 of the '187 patent. Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products satisfy all claim limitations of claims 1-6 and 26-30 at the time of importation into the United States.

86. Claim charts comparing the '187 patent's asserted independent claims 1, 3, 4, and 26 to a representative Accused Product are attached as Exhibit 29.

6. Infringement of the '298 Patent

87. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '298 patent.

88. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-5 of the '298 patent. Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products satisfy all claim limitations of claims 1-5 at the time of importation into the United States.

89. A claim chart comparing the '298 patent's asserted independent claim 1 to a representative Accused Product is attached as Exhibit 30.

7. Infringement of the '819 Patent

90. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '819 patent.

91. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-4, 6-12, 19, 22-28, and 52-59 of the '819 patent.¹³ Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products satisfy all claim limitations of claims 1-4, 6-12, 19, 22-28, and 52-59 at the time of importation into the United States.

92. Claim charts comparing the '819 patent's asserted independent claims 1 and 52 to a representative Accused Product are attached as Exhibit 31.

¹³ The application that issued as the '819 patent is subject to a certificate of correction that fixes a typographical error in each of asserted claims 57-59. Cree intends to move to amend the complaint to assert claims 57-59, as corrected, after the certificate issues.

8. Infringement of the '214 Patent

93. On information and belief, Respondents import, sell for importation and/or sell after importation into the United States Accused Products that infringe the '214 patent.

94. The Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7-8, 14-19, and 24-25 of the '214 patent.¹⁴ Respondents directly infringe at least these claims by importing, selling for importation and/or selling after importation into the United States the Accused Products. The Accused Products satisfy all claim limitations of claims 7-8, 14-19, and 24-25 at the time of importation into the United States.

95. Claim charts comparing the '214 patent's asserted independent claims 7 and 16 to a representative Accused Product are attached as Exhibit 32.

B. FALSE AND MISLEADING ADVERTISING

96. Many of Respondents' LED bulbs are advertised as being qualified to use the ENERGY STAR[®] logo. For example, Feit Electric's website contains the advertisement below:



Selection from www.feit.com (Exhibit 33)

¹⁴ The application that issued as the '214 patent is subject to a certificate of correction that fixes a typographical error in asserted claim 8. Cree intends to move to amend the complaint to assert claim 8, as corrected, after the certificate issues.

97. Respondents' advertising, through words and images, not only displays the ENERGY STAR® logo, but specifically highlights their LED bulbs' alleged omnidirectionality. For example, some of Respondents' LED bulb packaging contains an image comparing table lamps using a "STANDARD DIRECTIONAL LED" to an "OMNI DIRECTIONAL LED" that mimics the ENERGY STAR graphic shown in paragraph 57 above.

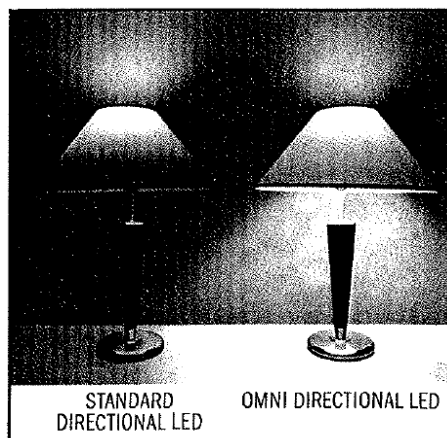


Image from Respondents' packaging (Exhibit 23)

98. Cree tested several of Respondents' LED bulbs in its EPA-qualified testing laboratory. Despite displaying an ENERGY STAR® logo and claiming omnidirectionality, certain of the tested bulbs failed the ENERGY STAR Luminous Intensity Distribution requirement (Section 9.5) by a wide margin. A description of these tests and test results is contained in Exhibit 21. All of the bulbs that failed this requirement provided insufficient light toward the base of the bulb, meaning that if the bulb is installed in a table lamp, it will provide insufficient light down toward the table (like the lamp shown on the left in the above image of Respondents' packaging), which in ENERGY STAR's words, "could prove to be a disappointment" to the consumer. See Exhibit 22. These LED bulbs were marked with the ENERGY STAR® logo even though they fail to satisfy the ENERGY STAR requirements.

99. In certain instances, Respondents' use of the ENERGY STAR® logo appears to be intentionally misleading. As described in Section VI above, the luminous distribution

requirements in Section 9.5 of the Eligibility Criteria are much more demanding for general purpose A-shape bulbs than for decorative G-shape bulbs. *See also* Exhibit 21 at 4-6. Apparently aware that certain of its A-shape LED bulbs fail the ENERGY STAR Luminous Intensity Distribution requirement applicable to such bulbs, Respondents advertise those bulbs as “decorative” (e.g. G-shaped (globe) bulbs) – misleading both the ENERGY STAR certification body and consumers. As shown below, however, there is no doubt that Respondents’ bulbs are A-shaped:



Comparison between Respondents’ LED Bulbs and Standard A and G bulb shapes

100. A decorative globe bulb is required to have an “essentially spherical” shape such that the ratio of its maximum overall diameter to maximum overall length is greater than 0.80. *See* Exhibit 21 at 3-4 (citing Eligibility Criteria § 14.1). This distinction is exemplified by the following images on Unity Opto’s website:



Selections from www.unityopto.com.tw (Exhibit 20)

101. By misrepresenting the shape and purpose of certain of its bulbs to the ENERGY STAR certification body, Respondents appear to have obtained certification for products that fail the luminous intensity distribution requirements applicable to all A-shape bulbs. *See* Exhibit 21 at 5.

102. On September 1, 2014, the EPA clarified the Eligibility Requirements to specifically to exclude G-shaped decorative LED bulbs “that could be mistaken for a general purpose A-lamp replacement” from ENERGY STAR unless they can pass the omnidirectional luminous intensity distribution requirements applicable to general purpose bulbs. *See* Exhibit 21 at 5. Indeed, the EPA made clear that any G-shape bulbs previously certified under the decorative-type requirements could not use the ENERGY STAR[®] logo after September 1, 2014. *See* Exhibit 34.

103. Despite this clarification, Respondents appear to have continued importing and selling LED bulbs falsely advertised as “DECORATIVE” with the ENERGY STAR[®] logo, misleading the public into purchasing A-shaped LED replacement bulbs that not only fail the ENERGY STAR Eligibility Criteria applicable to such bulbs, but also fail to provide their additionally advertised light distribution. For example, two of Respondents’ LED bulbs with the ENERGY STAR[®] logo that have nearly identical shape and appearance as shown below were purchased at retail outlets in December, 2014:



Respondents' Product Nos. BPAG500DM/LED and BPAGOM450/LED

104. The packaging for the bulb on the left includes the word “DECORATIVE” in small letters in the bottom left corner, but this bulb plainly appears to be the same shape as the bulb on the right, which is labeled “A19” on the top left part of the packaging. Both packages display the ENERGY STAR[®] logo. Both bulbs must therefore pass the omnidirectional luminous intensity distribution requirement in Section 9.5 of the ENERGY STAR Eligibility Criteria. However, in Cree’s testing, the bulb on the left (labeled “DECORATIVE”) failed this requirement by a large margin. *See* Exhibit 21 at 9. The bulb on the right passed. *Id.* Consumers are not informed of the difference. On the contrary, consumers are shown the ENERGY STAR[®] logo and are informed that that the bulb offers “IMPROVED LIGHT DISTRIBUTION” below a graphic image showing arrows of light pointing all around the bulb.

105. Internal testing by Cree suggests that Respondents’ ENERGY STAR labeled LED bulbs may also fail several other applicable requirements in the Eligibility Criteria, including Section 9.2 light output requirements, Section 9.8 color maintenance requirements, and Section 10.1 lumen maintenance requirements. *See* Exhibit 21 at 10-12. If these early

indications prove true in further testing, certain of Respondents' ENERGY STAR labeled LED bulbs are not only falsely labeled for these additional reasons, but also mislead consumers about the bulbs' brightness, color, and performance over time.

106. Respondents misrepresent the nature, characteristics, and qualities of certain of their LED bulbs by at least falsely and misleadingly advertising them as ENERGY STAR compliant, and of providing omnidirectional light distribution, in violation of section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), and the federal common law of unfair competition. Respondents' misrepresentations appear to be intentional at least because they have misrepresented the purpose and shape of their bulbs to obtain ENERGY STAR certification. Respondents' false advertising misleads consumers into purchasing products that fail to perform as advertised and misleads electric utilities into providing substantial subsidies to non-compliant products, causing substantial injury and threatening to cause substantial injury to Cree's domestic industry.

VIII. SPECIFIC INSTANCES OF UNFAIR IMPORTATION AND SALE

107. Feit Electric states that its "manufacturing capabilities span the globe from the shores of the U.S.A. to the Far East." *See* <http://www.feit.com/manufacturing>. Feit Electric further identifies manufacturing and research and development facilities in China. *See id.* Similarly, Unity Opto states that it has manufacturing locations in China and Taiwan, with a distribution facility in the United States. *See* <http://www.unityopto.com.tw/en-global/Html/location>.

108. U.S. Customs records also demonstrate that Respondents are selling for importation and importing Accused Products into the United States from overseas locations, including China and Taiwan. *See* Exhibit 35. For example, these records indicate that, in at least 2014, Feit Electric China has imported the Accused Products into the United States. These

records further indicate that, in at least 2014, Unity Opto has sold the Accused Products for exportation into the United States to Feit Electric. *See id.*

109. The Accused Products are labeled as manufactured in Taiwan or China and have been purchased in the United States, further demonstrating that Respondents' products are imported. *See* Exhibit 36.

IX. CLASSIFICATION OF THE INFRINGING PRODUCTS UNDER THE HARMONIZED TARIFF SCHEDULE

110. The Accused Products are classified under at least the following subheadings of the Harmonized Tariff Schedule of the United States: 8541.40.20 (light-emitting diodes), 8543.70.70 (electric luminescent lamps), 9405.10.60 (electric ceiling or wall lighting fittings), 9405.40.60 (metal electric lamps and lighting fittings), and 9405.40.80 (other electric lamps and lighting fittings). These classifications are exemplary in nature and not intended to restrict the scope of any exclusion order or other remedy ordered by the Commission.

X. RELATED LITIGATION

111. Cree is concurrently filing a complaint in the U.S. District Court for the Western District of Wisconsin, asserting the same patents and false advertising claims asserted here.

112. The '236 patent was involved in the *Cree, Inc. v. SemiLEDs Corp., et al*, 1:10-cv-00866-RGA (D. Del.) litigation, which was filed on October 8, 2010 and terminated on June 27, 2012 prior to trial as a result of settlement. The court held a *Markman* hearing on January 24, 2012, and the parties entered a Consent Judgment on June 22, 2012, resulting in dismissal of the case prior to the court issuing its *Markman* order. The parties stipulated to modifying the court's proposed scheduling order and as a result expert reports were not filed. The '236 patent was also involved in the *Bridgelux, Inc. v. Cree, Inc. et al*, 4:06-cv-06495-PJH (N.D. Cal.) litigation, which was filed on October 17, 2006 and terminated on January 7, 2009 prior to trial

as a result of settlement. The court held a *Markman* hearing on May 21, 2008 and entered a *Markman* order construing certain claim terms of the '236 patent on August 15, 2008. On August 6, 2008, the parties jointly moved to stay discovery as a result of settlement negotiations. On December 30, 2008, the parties jointly stipulated to dismiss the case without prejudice. The '036 and '056 patents were both involved in *Bridgelux, Inc. v. Cree, Inc.*, 9:06-cv-00240-RHC (E.D. Tex.), filed on October 17, 2006 and terminated on January 5, 2009 prior to trial as a result of settlement. The court held a *Markman* hearing on September 26, 2007 and entered a *Markman* order on June 3, 2008. Pursuant to the court's amended scheduling order, expert reports on issues for which the parties bear the burden of proof were served March 31, 2008, and expert reports on which the parties did not bear the burden of proof were served April 21, 2008. *See* Dkt. 154. Trial was set for August 11, 2008. *Id.* The parties entered a Consent Judgment on June 27, 2012, resulting in dismissal of the case without prejudice. The '298 patent is involved in the following litigations: *Cree, Inc. v. Harvatek Corp. and Harvatek Int'l (USA) Corp.*, 3:14-cv-00620-SLC (W.D. Wis.), filed September 15, 2014, pending; *Cree, Inc. v. Kingbright Electronic Co., Ltd., Kingbright Corp., and SunLED Corp.*, 3:14-cv-00621-SLC (W.D. Wis.), filed September 15, 2014, pending; *Cree, Inc. v. Honeywell Int'l Inc.*, 3:14-cv-00737-SLC (W.D. Wis.), filed October 28, 2014, pending.

113. The alleged unfair methods of competition and unfair acts, or the subject matter thereof, have not been the subject of any other previous litigation in any domestic or foreign court or administrative agency.

XI. THE DOMESTIC INDUSTRY RELATING TO THE ASSERTED PATENTS

114. An industry as required by Section 337(a)(2) and defined by Section 337(a)(3) exists in the United States relating to the Asserted Patents and Cree's LED products and components thereof protected by the Asserted Patents.

115. As described below and in the accompanying declaration at Exhibit 45, Cree designs, develops and/or manufactures numerous LED products and components in the United States that practice the claims of each of the Asserted Patents (“Domestic Industry Products”).

A. Cree’s Practice of the Asserted Patents (Technical Prong)

116. The chart below sets forth exemplary Domestic Industry Products that practice at least one claim of the Asserted Patents.

Patent	Practicing Domestic Industry Product(s)
'236 patent	Cree LED Lighting Products, including, for example, all Cree A-type, BR-type, PAR-type bulbs; Cree EZ LED chips; Cree DA LED chips; Cree Sapphire LED chips
'036 patent	Cree LED Lighting Products, including, for example, Cree A-type, BR-type, PAR-type bulbs incorporating Cree Sapphire LED chips; Cree Sapphire LED chips
'056 patent	Cree LED Lighting Products, including, for example, Cree A-type, BR-type, PAR-type bulbs incorporating Cree Sapphire LED chips; Cree Sapphire LED chips
'474 patent	Cree LED Lighting Products, including, for example, all Cree A-type, BR-type, PAR-type bulbs; Cree EZ LED chips; Cree DA LED chips; Cree Sapphire LED chips
'187 patent	All Cree A-type bulbs
'298 patent	Cree’s packaged LEDs CLM3A-WKW-WA-WT-28, CLM3C-WKW-XB-WU-29, CLM1C-WKW-XA-WT-28 and CLA2A-WKW-XB-WR-88
'819 patent	Cree LED Lighting Products, including, for example, all Cree A-type, BR-type, PAR-type bulbs
'214 patent	Cree LED Lighting Products, including, for example, all Cree A-type, BR-type, PAR-type bulbs

117. Claim charts demonstrating that representative Domestic Industry Products practice at least one claim of each Asserted Patent are attached as Confidential Exhibits 37-42 and Exhibits 43-44.¹⁵

B. United States Economic Activity Relating to the Domestic Industry Products (Economic Prong)

118. As detailed in Confidential Exhibit 45, Cree has made significant investments in plant and equipment and the employment of labor and capital in the United States relating to its Domestic Industry Products. In particular, Cree has made substantial investments in its facilities, equipment and personnel in at least Durham, North Carolina; Santa Barbara, California; and Racine, Wisconsin to manufacture, assemble, package, distribute, market and sell LED products and components that practice the Asserted Patents.

119. In addition, Cree has made substantial investments in its research and development that support its LED products and components that practice the Asserted Patents. Cree's reported research and development expenses were \$181.4 million, \$155.9 million and \$143.4 million for the fiscal years ending June 29, 2014, June 30, 2013 and June 24, 2012, respectively. *See* Exhibit 45. These investments include costs associated with both the development of new products and enhancements to existing products, many of which are protected by the Asserted Patents. Cree's investments relating to the Domestic Industry Products is further described in Confidential Exhibit 45.

XII. SUBSTANTIAL INJURY

120. Respondents' false and misleading advertising, including its false use of the ENERGY STAR[®] logo and other false advertising detailed in Section VII above, has caused

¹⁵ The Domestic Industry Products practice additional claims of the Asserted Patents, and Cree may establish the technical prong of the domestic industry requirement through claims other than those used in these exhibits.

and threatens to cause substantial injury to Cree's domestic industry in its ENERGY STAR-certified LED bulbs.

121. Respondents' falsely advertised LED bulbs mislead consumers into thinking that Respondents' inferior bulbs are equivalent to Cree's bulbs in terms of efficiency or quality, directly resulting in substantial injury to Cree's domestic industry through lost sales, especially because falsely advertised bulbs can be manufactured with cheaper, lower quality components and sold at lower prices. *See* Exhibit 45 at 9.

122. Respondents' falsely advertised LED bulbs poison the well of this relatively new market. When Respondents' products fail to perform as advertised, consumers develop a negative impression not only of Respondents' products, but on LED bulbs generally. These negative impressions caused by Respondents' false and misleading advertising cause substantial injury to demand for LED bulbs, including Cree's LED bulbs. If a consumer's first experience with an LED bulb is unsatisfactory because Respondents' bulb fails to provide omnidirectional light (for example, making reading under a lamp more difficult because the light is directed upward from the bulb and not down toward the book), or fails to maintain its brightness or changes light color over time, the consumer may decide not to buy any LED bulbs in the future. This is a problem that ENERGY STAR certification is designed to avoid, and consumers trust the ENERGY STAR brand. If Respondents' bulbs falsely labeled with the ENERGY STAR[®] logo continue to be widely available in the U.S. market, the ENERGY STAR brand will be substantially diluted, causing substantial injury to Cree's domestic industry in ENERGY STAR-certified bulbs. *See id.*

123. Respondents' LED bulbs falsely labeled with the ENERGY STAR[®] logo that unfairly receive utility subsidies cause direct and substantial injury to Cree's domestic industry

in ENERGY STAR bulbs. For example, as seen in the image below, in Washington, D.C., local utility rebates allow consumers to buy 40 watt equivalent ENERGY STAR-certified Cree A19 bulbs at the local home depot for \$3.98 each, instead of the regular price of \$9.97 each. Similarly, because of utility subsidies, a consumer shopping at the Washington, D.C. Costco store can buy a Feit Electric 40 watt equivalent bulb labeled with the ENERGY STAR logo for \$4.00 each (\$15.99 for a four pack), whereas without the subsidy, the bulb would sell for \$6.00 each (\$23.99 for a four pack).



124. Respondents' LED bulbs falsely labeled with the ENERGY STAR[®] logo that receive utility subsidies cause direct and substantial injury to Cree's domestic industry in ENERGY STAR-certified bulbs that compete with those bulbs. For example, if the Feit Electric bulbs shown in the image above did not receive the utility rebate, they would be sold at \$6 each and would not be price-competitive with Cree's ENERGY STAR-qualified LED bulbs. *See id.* at 10.

XIII. RELIEF REQUESTED

125. Complainant respectfully requests that the Commission:

(a) Institute an investigation pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to Respondents' violations of that section

arising from the importation into the United States, sale for importation, and/or the sale within the United States after importation of certain LED products and components thereof that infringe one or more claims of the Asserted Patents and/or falsely advertising their qualities or compliance with ENERGY STAR requirements;

(b) Schedule and conduct a hearing pursuant to Section 337(c) for the purposes of (i) receiving evidence and hearing argument concerning whether there has been a violation of Section 337, and (ii) following the hearing, determining that there has been a violation of Section 337;

(c) Issue a permanent exclusion order directed to products manufactured by Respondents, their subsidiaries, related companies and agents pursuant to 19 U.S.C. § 1337(d) excluding entry into the United States of certain LED products and components thereof that infringe one or more claims of the Asserted Patents and/or falsely advertise their qualities or compliance with ENERGY STAR requirements;

(d) Issue a permanent cease and desist order pursuant to 19 U.S.C. § 1337(f) prohibiting Respondents, their subsidiaries, related companies and agents from engaging in the importation, sale for importation, marketing and/or advertising, distribution, offering for sale, sale, use after importation, sale after importation, and other transfer within the United States of certain LED products and components thereof that infringe one or more claims of the Asserted Patents and/or falsely advertise their qualities or compliance with ENERGY STAR requirements;

(e) Impose a bond upon importation of certain LED products and components thereof that infringe and/or are manufactured by processes that infringe one or more claims of the Asserted Patents or falsely advertise their qualities or compliance with

ENERGY STAR requirements during the 60-day Presidential review period pursuant to 19 U.S.C. § 1337(j); and

(f) Issue such other and further relief as the Commission deems just and proper under the law, based on the facts determined by the investigation and the authority of the Commission.

Dated: January 12, 2015

Respectfully submitted,



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Counsel for Complainant Cree, Inc.

**UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.**

In the Matter of

**CERTAIN LIGHT-EMITTING DIODE
PRODUCTS AND COMPONENTS
THEREOF**

Investigation No. 337-TA- _____

VERIFICATION OF COMPLAINT

I, Scott Schwab, am Vice President for Consumer Lighting Products at Cree, Inc. and am authorized to execute this verification on behalf of Cree, Inc. I have read the Complaint and am aware of its contents. To the best of my knowledge, information, and belief and based upon a reasonable inquiry under the circumstances, I hereby certify that:

1. The allegations contained in the Complaint are well grounded in fact and have evidentiary support, or are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery;
2. The claims and other legal contentions set forth in the Complaint are warranted by existing laws or by a good faith, non-frivolous argument for extension, modification, or reversal of existing law, or by the establishment of new law; and
3. The Complaint is not being filed for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation.

Dated: January 12, 2015



Scott Schwab